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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,654

09/26/2006

Manfred Buck

MC1-8353

1655

7590 12/29/2009
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EXAMINER

LEE, SIN J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

12/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,654	Applicant(s) BUCK ET AL.	
	Examiner Sin J. Lee	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-35 is/are allowed.
- 6) ☒ Claim(s) 36-46 is/are rejected.
- 7) ☒ Claim(s) 47 and 48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/26/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Upon reconsideration, previous requirement for restriction/election is *hereby withdrawn* and all of present claims 25-48 were examined on merit for this Office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 38, 45 and 46 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38 recites the limitation "said material" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claim 45 recites the limitation "the hydrocarbon spacer group" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 46 recites the limitation "the hydrocarbon spacer group" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

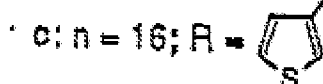
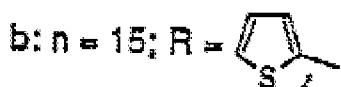
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 36-40 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Effenberger (US 2003/0035967 A1).

In Example 1, Effenberger coats a silicon surface with the following alkene compounds by bringing together the silicon surface and the compounds such as 1b and 1c in a glass cuvette and irradiating for 20-24 hours in an inert gas atmosphere:



1a: n = 15; R = CH₃



By this procedure, a self-assembled monolayer was formed. Effenberger also teaches that a metallic surface containing Al can be used (see [0020]). Present claim 36 calls for a surface-modified layer system comprising a substrate having a surface and a self-assembled monolayer anchored to at least part of the surface, wherein the SAM is comprised by an aryl or rigid alicyclic moiety species in a substantially stable structural form (present claim 36 is a product-by-process claim). Thus, the end product of Effenberger's Example 1 teaches present claims 36-40 and 42.

6. Claims 36-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Rozsnyai et al ("Selective Electrochemical Deposition of Polyaniline via Photopatterning of a Monolayer-Modified Substrate", Journal of American Chemical Society, 1994, 116(3), pg.5993-5994).

The end product of Rozsnyai's Scheme I shows a gold (Au) substrate having a surface and a self-assembled monolayer anchored to the surface by a thiol moiety, and

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the SAM comprises aryl moieties (some of which are substituted by amino group) as well as C11 alkyl group. Since present claim 36 calls for a surface-modified layer system comprising a substrate having a surface and a self-assembled monolayer anchored to at least part of the surface, wherein the SAM is comprised by an aryl or rigid alicyclic moiety species in a substantially stable structural form (present claim 36 is a product-by-process claim), Rozsnyai teaches present inventions of claims 36-44.

Allowable Subject Matter

7. Claims 47 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the cited prior arts teaches or suggests present SAM compound of claims 47 and 48.

8. Claims 25-35 are allowed. None of the cited prior arts teaches or suggests present step of providing a SAM which is polymorphic having at least first and second structural forms and then thermally treating the SAM so as to change the SAM from its first structural form to the second structural form as presently required in claim 25.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sin J. Lee/
Primary Examiner, Art Unit 1795
December 22, 2009